

**ABSTRACT OF THE DISCLOSURE**

Skew angle in a document image is estimated using operators known from mathematical morphology. Skew angle in a document image (A) is estimated by run-length smoothing the image and then producing a plurality of eroded run-length-smoothed images. The run-length-smoothed image ( $RLSA(A)$ ) is eroded using a linear structuring element ( $k_2L_\alpha$ ) oriented at each of a plurality of different angles ( $\alpha$ ). The angle of the linear structuring element which produces an eroded image having the greatest surface area is designated as the skew angle. A plurality of run-length-smoothed images ( $RLSA_\alpha(A)$ ) may be produced, each generated by smoothing the document image using a linear structuring element ( $k_1L_\alpha$ ) oriented at a respective different angle ( $\alpha_i$ ). Then each run-length smoothed image ( $RLSA_\alpha(A)$ ) is eroded using a linear structuring element oriented at the corresponding angle ( $\alpha_i$ ).